

July 9, 2015

UNITED STATES NUCLEAR REGULATORY COMMISSION
Region III, Materials Licensing Section
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

Re: Additional information for License No. 21-13562-01, Crittenton Hospital Medical Center.

Ms. Forster,

1. The original calculations to determine the amount of activity that was found with the radium-226 source was severely overestimated. The calculations used the gamma ray constant for Radium-226. This did not take into consideration the gamma contributors of Pb-214 and Bi-214 daughter products. Working with my coworker who is a certified Health Physicist, we calculated the amount of activity to be 9.45 uCi. Therefore, no decommissioning financial assurance is necessary.
2. The "activity" can best be described as a lead dust that has been contaminated with radium-226. This was a pig that was probably used in radiation oncology in the past. The lead pig is on wheels attached to a post in order to walk with the source at your feet vs carrying any radioactivity. Upon searching through our records, we can find no dates or time references that Radium-226 was utilized at this facility. No physicians currently working at the hospital have used Radium-226. This lead pig was discovered during the NRC survey on February 26, 2015. We are not sure of the exact date that this lead pig came to the nuclear medicine department. It was in a corner, hidden by a curtain out of the way. It had not been checked in or documented by staff. The best assumption is that it was brought to NM from the OR where they were doing some remodeling October 2014. We did check with security, they have no record of delivering it to NM.
3. The pig has been placed in a storage room that is posted and locked. Entry is limited to security and the Administrative Director of Imaging & Diagnostics. The entire pig has been placed in a plastic bag.

4. The wipes on the outside of the lead pig resulted in 0 dpm.

BKGD: 3548 cts/5 min
Wipe: 3481 cts/5 min,
net count: 0 cpm

5. The Radium-226 is for "storage incident to disposal". We have contracted with Bionomics for the disposal of this lead pig.

Thank you for your cooperation with this matter. If you have any questions or require additional information please contact our physicist, Michelle L. Kritzman, at (734) 662-3197.

Sincerely,

A handwritten signature in cursive script that reads "William Bell, Jr.".

Administrative Director Imaging & Diagnostics
Crittenton Hospital Medical Center
Rochester, Michigan

Forster, Sara

From: Bill Bell <bbell@crittenton.com>
Sent: Thursday, July 09, 2015 3:59 PM
To: Forster, Sara
Cc: Shelli Kritzman
Subject: [External_Sender] Additional Information for Radium-226 License No. 21-13562-01
Attachments: NRC Radium Amendment II.pdf

Importance: High

Good Afternoon Sara,

Attached is the additional information requested for License No. 21-13562-01, regarding amendment for Radium-226.
Thank You for assistance with our license amendment request.

You and your Family have a Joyful and Blessed Week

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N/A - JF